

TITLE: Highlights of the First 15 Months of Aquarius Salinity Measurements

AUTHORS: Gary S E Lagerloef¹, Hsun-Ying Kao¹, Frank Wentz², David M Le Vine³, Simon H Yueh⁴, Gene C. Feldman³

INSTITUTIONS:

1. Earth & Space Research, Seattle, WA, United States.
2. Remote Sensing Systems, Santa Rosa, CA, United States.
3. NASA Goddard Space Flight Center, Greenbelt, MD, United States.
4. NASA Jet Propulsion Laboratory, Pasadena, CA, United States.

ABSTRACT:

Aquarius satellite salinity measurements are resolving the major global and regional spatial patterns, and temporal variations, since the start of routine data collection on 25 August 2011. This description includes the principal seasonal variations over the first annual cycle as observed by the mission. In particular, we identify the evolution of low salinity anomalies associated with the Atlantic and Pacific intertropical convergence zones (ITCZ), major river outflows such as the Amazon, a seasonal low salinity anomaly in the Panama bight, and other features. We also explore the links that the salinity variations have with precipitation and surface currents. We then will describe the variations related to the presently evolving 2012 El Niño, now evident, as it progresses through the summer and fall 2012. We conclude with a brief summary of the Aquarius data products and validation.

Aquarius surface salinity averaged over the first 10 months of observations.

